

FIG. 1

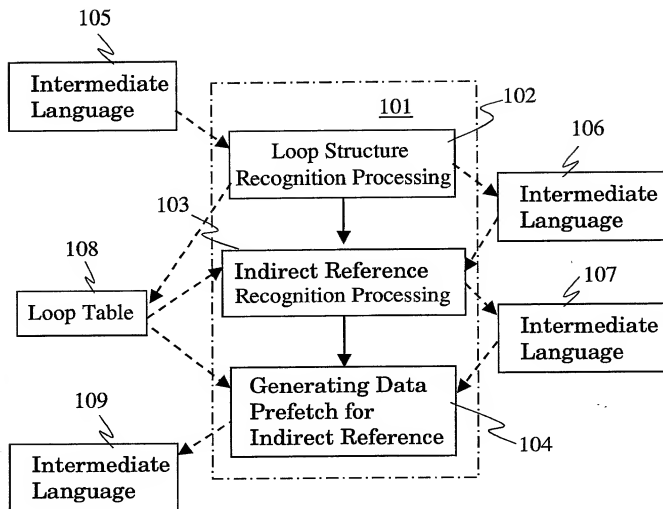


FIG. 2

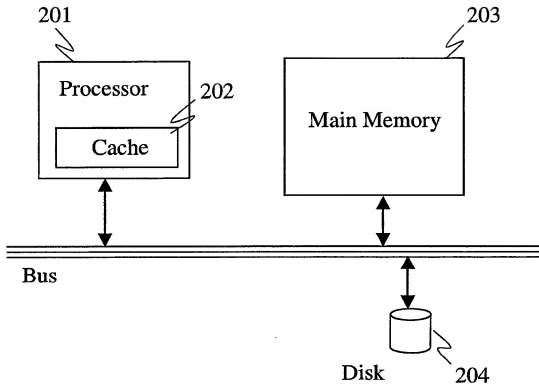


FIG. 3A

```
DO i=1,N
  s=s+A[L[i]]
END DO
```

FIG. 3B

```
DO i=1,N,4
  PREFETCH L[i+ $\alpha$ ]
  s=s+A[L[i]]
  s=s+A[L[i+1]]
  s=s+A[L[i+2]]
  s=s+A[L[i+3]]
END DO
```

FIG. 3C

```
DO i=1,N,4
  PREFETCH L[i+2 $\alpha$ ]
  t0= L[i+ $\alpha$ ]
  PREFETCH A[t0]
  t1= L[i+1+ $\alpha$ ]
  PREFETCH A[t1]
  t2= L[i+2+ $\alpha$ ]
  PREFETCH A[t2]
  t3= L[i+3+ $\alpha$ ]
  PREFETCH A[t3]
  s=s+A[L[i]]
  s=s+A[L[i+1]]
  s=s+A[L[i+2]]
  s=s+A[L[i+3]]
END DO
```

FIG. 4

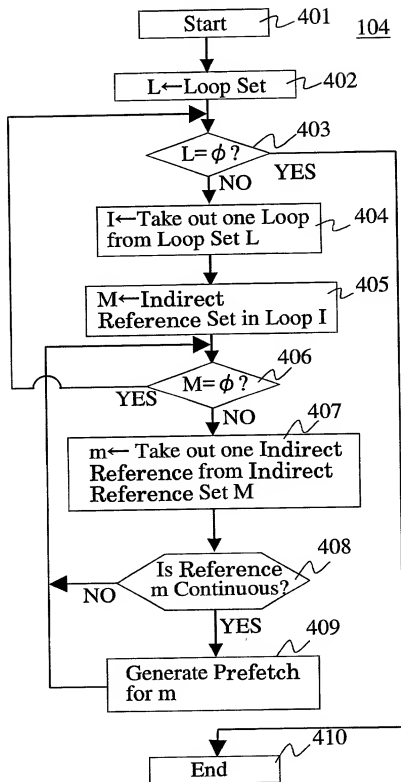
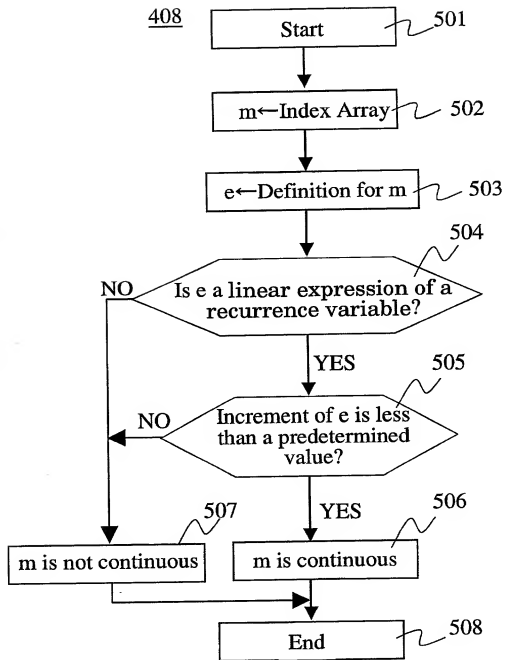


FIG. 5



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*FIG. 6*

-array\_index L=2

*FIG. 7*

\*option increase(L,2)  
DO i=1,N  
  s=s+A[L[i]]  
END DO

*FIG. 8*

DO i=1,N  
  L[i]=i\*2  
END DO

*FIG. 9*

DO i=1,N,4  
  PREFETCH L[i+ $\alpha$ ]  
  t0=L[i+ $\alpha$ ]  
  PREFETCH A[t0]  
  s=s+A[L[i]]  
  s=s+A[L[i+1]]  
  s=s+A[L[i+2]]  
  s=s+A[L[i+3]]  
END DO

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